

CLAIMS

What is claimed is:

1. An optically active color filter comprising:

a linear polarizer for polarizing light from a light source;

5 an optically active device for rotating the polarized light from the polarizer; and

an adjustable polarizer for selecting a desired color from the rotated polarized light from the optically active device.

2. The color filter of claim 1, wherein the linear polarizer is a fixed-position linear polarizer.

10 3. The color filter of claim 1, wherein the optically active device comprises a crystalline quartz optical rotator.

4. The color filter of claim 1, wherein the optically active device comprises corn syrup.

5. The color filter of claim 1, wherein the optically active device comprises a sucrose solution.

15 6. The color filter of claim 1, wherein the adjustable polarizer is a first rotatable polarizer.

7. The color filter of claim 6, wherein the first rotatable polarizer is circular shaped and has a cutout, wherein the first rotatable polarizer is disposed offset from a path of the rotated polarized light from the optically active device, and further wherein the radius of the first
20 rotatable polarizer extends beyond the light path.

8. The color filter of claim 6 further comprising a second rotatable polarizer disposed between the light source and linear polarizer.

9. The color filter of claim 1, wherein the thickness of the optically active device is adjustable.

10. The color filter of claim 1, wherein the optically active device comprises a multiplicity of removable optically active layers.

11. The color filter of claim 1, wherein at least one element thereof is removable.

12. The color filter of claim 1, wherein the optical activity of the optically active device
5 is electrically controlled.

13. The color filter of claim 1, wherein the thickness of the optically active device is not uniform.

14. The color filter of claim 1, wherein the color filter is controlled by a remote control device.

10 15. The color filter of claim 14, wherein the control device is an electronic control device.

16. The color filter of claim 14, wherein the remote control device is a wireless remote control device.

17. An optically active color filter comprising:

15 a first linear polarizer for polarizing light from a light source;
an optically active device for rotating the polarized light from the linear polarizer; and

an electrically controlled polarizing assembly for selecting a desired color from the rotated polarized light from the optically active device.

20 18. The color filter of claim 17, wherein the polarizing assembly comprises:

a voltage-controlled liquid crystal panel and

a second linear polarizer.

19. A optically active color filter comprising:

a linear polarizing beamsplitter for polarizing and splitting light from a light source into a first polarized light and a second polarized light;

5 an optically active means for rotating the first and second polarized light from the beamsplitter;

a first adjustable polarizer for selecting a desired first color from the rotated first polarized light from the optically active means; and

a second adjustable polarizer for selecting a desired second color from the rotated second polarized light from the optically active means.

10 20. The color filter of claim 19, wherein the color filter is controlled by a remote control device.

21. The color filter of claim 19, wherein the optically active means is an optically active device.

22. The color filter of claim 19, wherein the optically active means comprises:

15 a first optically active device for rotating the first polarized light from the beamsplitter; and

a second optically active device for rotating the second polarized light from the beamsplitter.

23. A lighting effects device, the device comprising:

20 an adjustable polarizer for polarizing light from a light source;

an optically active device for rotating the polarized light from the polarizer; and

a polarizing material for producing a desired color from the rotated polarized light from the optically active device.

24. The lighting effects device of claim 23, wherein the lighting effects device is controlled by a remote control device.

25. A device for producing a colored light, the device comprising:

a linear polarizer for polarizing light from a light source;

5 an optically active device for rotating the polarized light from the linear polarizer; and

an adjustable polarizer for selecting a desired color from the rotated polarized light from the optically active device.

26. An optically active color filter comprising:

10 an adjustable polarizer for polarizing and selecting a desired color from a light source;

an optically active device for rotating the polarized light from the adjustable polarizer; and

a linear polarizer for polarizing the rotated polarized light.

15 27. A method for producing a colored light, the method comprising:

polarizing light from a light source;

rotating the polarized light through an optically active substance; and

selecting a desired color from the rotated polarized light.

20 28. The method of claim 27, wherein the selecting step comprises passing the rotated polarized light through an adjustable polarizer.

29. The method of claim 27, wherein the thickness of the optically active substance is adjustable.

30. The method of claim 27, wherein the thickness of the optically active substance is not uniform.

31. The method of claim 27, wherein the optically active substance is a liquid.